

We claim:

1. A method of reading from data on a double-sided optical disc having, comprising:
 - rotating the disc;
 - reading data from the lead-in area of the first side to the lead-out area of said first side; and
 - reading data from the lead-in area of said second side to the lead-out area of said first second side, data being read from the first and the second sides without stopping the disc.
2. The method of claim 1 wherein data are read using a single laser head, said laser head being switched from one side to the other without stopping the disc.
3. The method of claim 2 wherein data are read using two laser heads disposed adjacent to a respective side of the disc, wherein one laser head is used to read data from one side and another laser head is used to read data from the second side.
4. The method of claim 1 further comprising attempting to read data from one side of the disc, and if the attempt is unsuccessful, then reversing the rotation of the disc.
5. The method of claim 4 further comprising collecting information from

the disc while the disc is rotating in a first direction, determining if the information can be converted into data.

6. The method of claim 5 further comprising using a first algorithm on said information, said first algorithm being structured to convert information into data when said disc is rotating in the first direction, and if the attempt is unsuccessful, then converting the information using a second algorithm associated with the disc rotating in a reverse direction.

7. The method of claim 5 wherein the information is reversed in the time domain if it cannot be converted into data.

8. A method of reading data from a double-sided disc, said data being arranged in spirals on the respective side of the disc, comprising:

rotating the disc in a first direction;

attempting to read data from one side of the disc; and

rotating the disc in a second direction if the attempt fails.

9. The method of claim 8 wherein the disc has spirals on each side that are mirror images, comprising reading data from either side of the disc without reversing or removing the disc.

10. The method of claim 8 wherein the data is arranged in spirals oriented

in the same direction as viewed from the respective side of the disc, comprising reading data from one side while the disc is rotating a first direction and reading data from the second side as the disc is rotated in the opposite direction.

11. The method of claim 8 further comprising detecting the direction in which data is disposed on the disc.

12. The method of claim 11 wherein said detection includes detecting information from the disc and using one a first and a second algorithms to convert the information into data, said first algorithm corresponding to data being disposed in a first direction and the second algorithm corresponding to data being disposed in a second direction.

13. The method of claim 11 wherein said step of detecting includes detecting information from the disc, attempting to convert said information to data, and if the attempt fails, reversing said information in time.

14. The method of claim 13 further comprising attempting to convert the reversed information into data.

15. The method of claim 8 further comprising rotating the disc in said first direction if information from one side is converted into data, and rotating the disc in the

same direction to read data from the second side.

16. The method of claim 8 further comprising rotating the disc in said first direction if information from one side is converted into data and rotating the disc in the opposite direction to read data from the second side.

17. An apparatus for reading data from a double-sided disc comprising:
a read head disposed adjacent to one side of the disc;
a motor assembly adapted to rotate the disc in a first direction; and
a controller adapted to collect information from said first disc and to attempt to convert said information into data to determine if said disc is rotating in the right direction.

18. The apparatus of claim 17 wherein said controller controls said motor assembly, said controller being adapted to reverse the rotation of the motor assembly if information cannot be converted into data.

19. The apparatus of claim 17 wherein said controller includes a memory storing said information, said controller being adapted to reverse said information if the information cannot be converted into data.

20. The apparatus of claim 17 wherein said controller applies a first

algorithm to said information, said first algorithm being associated with a first direction of rotation.